

**BEST AVAILABLE COPY**IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A method for optimizing performance of a software application within a computer system, wherein said software application includes a plurality of agents, said method comprising:

assigning each of said plurality of agents a different segment range of numbers, wherein ~~each range~~ all of said segments initially ~~has~~ have an identical size;

repeatedly performing:

~~generating a randomly selecting one of said segments number;~~

~~requesting an agent among a particular one of said plurality of agents having an assigned range said selected segment within which said random number falls to change a parameter of said software application; and~~

after each of said plurality of agents has been requested at least once, adjusting at least said range of numbers segment size assigned to one or more of said plurality of agents according to a performance result of said computer system change in said software application associated with the parameter change initiated by each respective agent.

Please cancel Claims 2-11.

Please add Claims 12-25 as follows:

12. (new) The method of Claim 1, wherein said adjusting further includes increasing segment size of an agent if the corresponding performance of said software application has improved.
13. (new) The method of Claim 1, wherein said adjusting further includes decreasing segment size of an agent if the corresponding performance of said software application has worsen.
14. (new) The method of Claim 1, wherein said method further includes generating a working weight for each of said plurality of agents, wherein said working weight corresponds with a segment size.
15. (new) The method of Claim 14, wherein said generating a working weight further includes calculating a new working weight for each of said plurality of agents that has a positive performance by

$$\forall_n \text{ new working weight}(n) = \frac{\text{improvement}}{\text{successratio}}$$

where  $n$  = agent number and said success ratio is determined by adding all positive performance change values from all said plurality of agents and ignoring all negative performance change values.

16. (new) A computer program product residing on a computer usable medium for optimizing software applications within a computer system, wherein said software application includes a plurality of agents, said computer program product comprising:

program code means for assigning each of said plurality of agents a different segment, wherein all of said segments initially have an identical size;

program code means for repeatedly performing:

randomly selecting one of said segments;

requesting a particular one of said plurality of agents assigned said selected segment to change a parameter of said software application; and

program code means for adjusting segment size assigned to one or more of said plurality of agents according to a performance change in said software application associated with the parameter change initiated by each respective agent, after each of said plurality of agents has been requested at least once.

17. (new) The computer program product of Claim 16, wherein said program code means for adjusting further includes program code means for increasing segment size of an agent if the corresponding performance of said software application has improved.

18. (new) The computer program product of Claim 16, wherein said program code means for adjusting further includes program code means for decreasing segment size of an agent if the corresponding performance of said software application has worsen.

19. (new) The computer program product of Claim 16, wherein said computer program product further includes program code means for generating a working weight for each of said plurality of agents, wherein said working weight corresponds with a segment size.

20. (new) The computer program product of Claim 19, wherein said program code means for generating a working weight further includes program code means for calculating a new working weight for each of said plurality of agents that has a positive performance by

$$\forall_n \text{ newworkingweight}(n) = \frac{\text{improvement}}{\text{successratio}}$$

where  $n$  = agent number and said success ratio is determined by adding all positive performance change values from all said plurality of agents and ignoring all negative performance change values.

21. (new) A data processing system having a controller for optimizing software applications within a computer system, wherein said software application includes a plurality of agents, said data processing system comprising:

means for assigning each of said plurality of agents a different segment, wherein all of said segments initially have an identical size;

means for repeatedly performing:

randomly selecting one of said segments;

requesting a particular one of said plurality of agents assigned said selected segment to change a parameter of said software application; and

means for adjusting segment size assigned to one or more of said plurality of agents according to a performance change in said software application associated with the parameter change initiated by each respective agent, after each of said plurality of agents has been requested at least once.

22. (new) The data processing system of Claim 21, wherein said means for adjusting further includes program code means for increasing segment size of an agent if the corresponding performance of said software application has improved.

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23. (new) The data processing system of Claim 21, wherein said means for adjusting further includes program code means for decreasing segment size of an agent if the corresponding performance of said software application has worsen.

24. (new) The data processing system of Claim 21, wherein said data processing system further includes program code means for generating a working weight for each of said plurality of agents, wherein said working weight corresponds with a segment size.

25. (new) The data processing system of Claim 24, wherein said means for generating a working weight further includes program code means for calculating a new working weight for each of said plurality of agents that has a positive performance by

$$\forall_n \text{ newworkingweight}(n) = \frac{\text{improvement}}{\text{successratio}}$$

where  $n$  = agent number and said success ratio is determined by adding all positive performance change values from all said plurality of agents and ignoring all negative performance change values.